THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A grain cleaner comprising a main framework, a grain inlet for accepting a flow of grain, grain cleaning means to separate the grain from at least some of its contaminants and a grain outlet to conduct the grain away from the grain cleaning means, the grain cleaning means including a scalper having a tube rotatable along its long axis and including apertures disposed through its side wall, the apertures being selected to permit passage therethrough of the grain while excluding materials of size larger than the apertures and a grain hopper for directing the flow of grain against the tube's outer surface, the hopper including a wall positioned against the outer surface of the tube, the flow of grain being retained in the hopper between the wall and the outer surface of the tube until it passes through the apertures of the tube.

2. The invention as defined in claim 1 wherein the hopper includes an upper opening and the tube is selected to rotate in a direction which moves materials excluded by the apertures upwardly in the hopper and out through the upper opening.

3. The invention as defined in claim 1 wherein the grain cleaning means further comprises an air separator box including an inlet opening for permitting a flow of grain therethrough and into the air separator box, a grain exit opening positioned below the inlet opening such that grain passing through the inlet opening can drop, by gravity, into the grain exit opening, a means for generating a flow of air and directing it through the flow of grain between the inlet opening and the grain exit opening, a waste material outlet from the air box, the waste material outlet positioned such that the flow of air can pass into the waste

material outlet without passing again through the flow of grain and a baffle positioned between the grain exit opening and the waste material outlet.

4. The invention as defined in claim 3 wherein the air separator box includes a housing formed to substantially prevent the flow of air from exiting the air separator box except through the waste material outlet.

5. The invention as defined in claim 3 wherein the air box includes a wall and the means for generating a flow of air directs the flow of air towards the wall, the wall being curved to direct the flow of air away from the upper portions of the air separator box and toward the waste material outlet.

6. The invention as defined in claim 3 wherein a chute extends from the scalper to an opening into the waste material chute to convey excluded materials from the scalper to the waste material chute and the flow of air passing the opening draws air from the scalper into the waste material chute.

7. The invention as defined in claim 1 wherein a first portion of the grain cleaning means is mounted on a support frame moveably mounted to the main framework such that the first portion of the grain cleaning means can be moveable between a first position and a second position on the main framework of the grain cleaner.

8. The invention as defined in claim 7 wherein a second portion of the grain cleaning means is positioned in side by side relation with the first portion of the grain cleaning means, the second portion of the grain cleaning means having inside components adjacent the first portion of the grain cleaning means and the support frame being moveable on the main framework to permit the first portion of the grain cleaning means to be moved outwardly from the second portion of the grain cleaning means to provide access to the inside components.

9. The invention as defined in claim 7 wherein the support frame is connected to the main framework by a pivotal connection and the support frame is moveable over the main framework by pivoting about the pivotal connection.

10. The invention as defined in claim 1, the grain cleaning means further comprising an indent cylinder assembly including a cylinder having an inner surface with a plurality of indentations formed thereon, the cylinder being formed of a sheet of material wrapped and releasably secured into a cylindrical form and mounted on a frame.

11. The invention as defined in claim 10 wherein the indent cylinder includes an outer sheet material and an inner perforated liner, the outer sheet material including a releasable locking means aligned along two opposite edges thereof for securing the outer sheet material into the cylindrical form.

12. The invention as defined in claim 11, the inner perforated liner being formed of a polymeric material.

13. The invention as defined in claim 11 wherein the inner perforated liner is secured to the outer sheet along an edge adjacent one of the opposite edges accommodating the locking means.

14. A grain cleaner comprising a main framework, a grain inlet for accepting a flow of grain, grain cleaning means to separate the grain from at least some of its contaminants and a grain outlet to permit flow of the grain away from the grain cleaning means, at least at least a portion of the grain cleaning means being mounted on a support frame moveably mounted to the main framework such that the grain cleaning means can be moveable between a first position and a second position on the main framework of the grain cleaner.

15. The invention as defined in claim 14 wherein a second portion of the grain cleaning means is positioned in side by side relation with the at least a portion of the grain cleaning means, the second portion of the grain cleaning means having inside components adjacent the at least a portion of the grain cleaning means and the support frame being moveable on the main framework to permit the at least a portion of the grain cleaning means to be moved outwardly from the second portion of the grain cleaning means to provide access to the inside components.

16. The invention as defined in claim 14 wherein the support frame is connected to the main framework by a pivotal connection and the support frame is moveable over the main framework by pivoting about the pivotal connection.

17. The invention as defined in claim 14 wherein the grain cleaning means comprises a scalper having a tube rotatable along its long axis and including apertures disposed through its side wall, the apertures being selected to permit passage therethrough of the grain while excluding materials of size larger than the apertures and a grain hopper for directing the flow of grain against the tube's outer surface, the hopper including a wall positioned against the outer surface of the tube, the flow of grain being retained in the hopper between the wall and the outer surface of the tube until it passes through the apertures of the tube.

18. The invention as defined in claim 17 wherein the hopper includes an upper opening and the tube is selected to rotate in a direction which moves materials excluded by the apertures upwardly in the hopper and out through the upper opening.

19. The invention as defined in claim 14 wherein the grain cleaning means comprises an air separator box including an inlet opening for permitting a flow of grain therethrough and into the air separator box, a grain exit opening positioned below the inlet opening such that grain passing through the inlet opening can drop, by gravity, into the grain exit opening, a means for generating a flow of air and directing it through the flow of grain between the inlet opening and the grain exit opening, a waste material outlet from the air box, the waste material outlet positioned such that the flow of air can pass into the waste material outlet without passing again through the flow of grain and a baffle positioned between the grain exit opening and the waste material outlet.

20. The invention as defined in claim 19 wherein the air separator box includes a housing formed to substantially prevent the flow of air from exiting the air separator box except through the waste material outlet.

21. The invention as defined in claim 19 wherein the air box includes a wall and the means for generating a flow of air directs the flow of air towards the wall, the wall being curved to direct the flow of air away from the upper portions of the air separator box and toward the waste material outlet.

22. The invention as defined in claim 19 wherein the baffle is adjustable in its degree of extension into the air separator box.

23. The invention as defined in claim 14, the grain cleaning means comprising an indent cylinder assembly including a cylinder having an inner surface with a plurality of indentations formed thereon, the cylinder being formed of a sheet of material wrapped and releasably secured into a cylindrical form and mounted on a frame.

24. The invention as defined in claim 23 wherein the indent cylinder includes an outer sheet material and an inner perforated liner, the outer sheet material

including a releasable locking means aligned along two opposite edges thereof for securing the outer sheet material into the cylindrical form.

25. The invention as defined in claim 24, the inner perforated liner being formed of a polymeric material.

26. The invention as defined in claim 24 wherein the inner perforated liner is secured to the outer sheet along an edge adjacent one of the opposite edges accommodating the locking means.

27. A grain cleaner comprising a framework, a grain inlet for accepting a flow of grain, grain cleaning means to separate the grain from at least some of its contaminants and a grain outlet to conduct the grain away from the grain cleaning means, an auger being disposed in the grain outlet, the auger including a trough and an auger, the trough being mounted to permit the trough to be pivoted to empty its contents by gravity.

28. A grain cleaner comprising a framework, a grain inlet, a screen separator drum having a long axis and supported by the framework to be rotatable about its long axis, a channel extending to conduct materials from the screen separator drum to an indent cylinder assembly, the indent cylinder assembly having a long axis and including an indent cylinder and an auger flight extending therethrough, the indent cylinder and auger flight being supported by the framework and the cylinder being rotatable about the long axis of the assembly and a grain outlet to conduct materials away from the auger flight, a second auger flight being disposed in the grain outlet, the second auger flight including a trough and an auger, the trough being mounted to permit it to be pivoted to empty its contents by gravity.

29. The invention as defined in claim 28 further comprising an auger under the separator screen, having a drop out trough.

30. A grain cleaner comprising a framework, a grain inlet for accepting a flow of grain, grain cleaning means to separate the grain from at least some of its contaminants and a grain outlet to conduct the grain away from the grain cleaning means, the grain cleaning means including at least one indent cylinder assembly, the indent cylinder assembly including an indent cylinder having an inner surface formed with a plurality of indentations formed thereon, the indent cylinder being formed of a sheet of material wrapped and releasably secured into a cylindrical form and mounted about an inner frame.

31. The invention as defined in claim 30 wherein the indent cylinder includes an outer sheet material and an inner perforated liner, the outer sheet material including a releasable locking means aligned along two opposite edges thereof for securing the outer sheet material into the cylindrical form.

32. The invention as defined in claim 31, the inner perforated liner being formed of a polymeric material.

33. The invention as defined in claim 31 wherein the inner perforated liner is secured to the outer sheet along an edge adjacent one of the opposite edges accommodating the locking means.

34. A grain cleaner comprising a framework, a grain inlet for accepting a flow of grain, grain cleaning means to separate the grain from at least some of its contaminants and a grain outlet to conduct the grain away from the grain cleaning means, the grain cleaning means including an air separator box including a grain inlet for permitting a flow of grain into the air separator box, a grain outlet positioned below the grain inlet such that grain passing from the grain inlet can drop, by gravity, into the grain outlet, a means for generating a flow of air and directing it at the flow of grain between the grain inlet and the grain outlet, a waste material outlet from the air box and a baffle positioned between the grain outlet and the waste material outlet.

35. The invention as defined in claim 34 wherein the air separator box includes a housing formed to substantially prevent the flow of air from exiting the air separator box except through the waste material outlet.

36. The invention as defined in claim 34 wherein the air box includes a wall and the means for generating a flow of air directs the flow of air towards the wall, the wall being curved to direct the flow of air away from the upper portions of the air separator box and toward the waste material outlet.

37. The invention as defined in claim 34 wherein the baffle is adjustable in its degree of extension into the air separator box.

38. The invention as defined in any of claims 1, 14, 27, 28, 30 or 34 wherein the grain cleaner is mounted on transportation means.